Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in this application:

1-5. (cancelled)

6. (amended) The method of claim [1] 55, wherein the silicon precursor is selected from the group consisting of silane, halosilane, trimethylsilane, tetramethylsilane, dimethyldimethoxysilane, tetramethylcyclotetrasiloxane, bis-trimethylsilylmethane, methyltrichlorosilane, silane, tetraethylsilane, and silacyclobutane.

7.(original) The method of claim 6, wherein the halosilane is selected from the group consisting of dichlhorosilane, trichlorosilane, and tetrachlorosilane.

8. (original) The method of claim 7, wherein the silicon precursor is dichlorosilane.

9-15. (cancelled)

16. (amended) The method of claim [1] 55, wherein the [predetermined] flow rate of the carbon precursor is about 180 standard cubic centimeters per minute.

17. (original) The method of claim [1] 55, wherein supplying carbon precursor comprises supplying acetylene in hydrogen to the reaction chamber at a flow rate of about 180 standard cubic centimeters per minute.

18-20. (cancelled)

21. (original) A method of depositing a silicon carbide film on a substrate by chemical vapor deposition, comprising

(a) placing at least one substrate in a reaction chamber;

(b) maintaining the reaction chamber at a predetermined pressure;

(c) supplying carbon precursor to the reaction chamber at a predetermined fixed flow rate;

PAGE 4/11 * RCVD AT 7/21/2006 5:26:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/9 * DNIS:2738300 * CSID:2162410816 * DURATION (mm-ss):03-18

(d) supplying silicon precursor to the reaction chamber at a flow rate; and

(e) controlling the silicon precursor flow rate to control the stress in the deposited silicon carbide film.

22-42. (cancelled)

43. (withdrawn) A substrate having a silicon carbide film deposited thereon, wherein the silicon carbide film has a residual stress of between about 100 MPa and about -100 MPa.

44. (withdrawn) The substrate of claim 0, wherein the electrical resistivity of the silicon carbide film is less than about 5 Ω·cm.

45. (withdrawn) The substrate of claim 0, wherein the residual stress is about 0 MPa.

46. (withdrawn) The substrate of claim 0, wherein the substrate is a silicon wafer or silicon chip.

47. (withdrawn) A micromechanical, microelectromechanical, nanomechanical, or nanoelectromechanical device comprising a substrate having a silicon carbide film deposited thereon, the silicon carbide film having a residual stress of between about 100 MPa and about -100 MPa, and electrical resistivity less than about 5 Ω·cm.

48. (withdrawn) A micromechanical, microelectromechanical, nanomechanical, or nanoelectromechanical device comprising a substrate having a silicon carbide film deposited thereon by the method of claim 0.

49. (withdrawn) A micromechanical, microelectromechanical, nanomechanical, or nanoelectromechanical device comprising a substrate having a silicon carbide film deposited thereon by the method of claim 0.

50-53. (cancelled)

54. (new) A process for achieving a predetermined value in a desired property selected from residual stress and electrical resistivity in a product ceramic film deposited on a

PAGE 5/11 * RCVD AT 7/21/2006 5:26:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/9 * DNIS:2738300 * CSID:2162410816 * DURATION (mm-ss):03-18

substrate by low pressure chemical vapor deposition, the ceramic being formed from a metallic element and a non-metallic element, the product ceramic film being formed by

- supplying a metallic element precursor to a reaction chamber,
- separately supplying a non-metallic element precursor different from the metallic element precursor to the reaction chamber under conditions of temperature and pressure such that the metallic element precursor and the non-metallic element precursor react to form the product ceramic film on a substrate inside the reaction chamber,

the process comprising

(a) selecting pressure or flow rate of the metallic element precursor as the control variable,

(b) determining the relationship between the desired property and the control variable when the remaining variables in the low temperature vapor deposition process are held at selected fixed values, and

(c) during formation of the product ceramic film, achieving the predetermined value for the desired property by controlling the control variable while maintaining the remaining variables at the above selected fixed values.

55. (new) A process according to claim 54 for achieving a desired residual stress or electrical resistivity in a product silicon carbide film deposited on a substrate by low pressure chemical vapor deposition, the product silicon carbide film being formed by

- supplying a silicon precursor to a reaction chamber,
- separately supplying a carbon precursor different from the silicon precursor to the reaction chamber under conditions of temperature and pressure such that the silicon precursor and the carbon precursor react to form the product silicon carbide film on a substrate inside the reaction chamber,

the process comprising

(a) selecting pressure or flow rate of the silicon precursor as the control variable,

(b) determining the relationship between residual stress or electrical resistivity and the control variable when the remaining variables in the low temperature vapor deposition process are held at selected fixed values, and

PAGE 6/11 * RCVD AT 7/21/2006 5:26:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/9 * DNIS:2738300 * CSID:2162410816 * DURATION (mm-ss):03-18

(c) during formation of the product silicon carbide film, achieving the desired residual stress or electrical resistivity by controlling the control variable while maintaining the remaining variables at the above selected fixed values.

56. (new) The process of claim 55, wherein the product silicon carbide film is produced to have a predetermined residual stress between about 700 MPa to about and -100 MPa.

57. (new) The process of claim 56, wherein the predetermined residual stress is achieved by controlling pressure.

58. (new) The process of claim 57, wherein the pressure in the reaction chamber is set to a value between about 0.42 torr and about 5 torr to achieve the predetermined residual stress.

59. (new) The process of claim 58, wherein the pressure in the reaction chamber is set to a value of about 2 torr.

58. (new) The process of claim 56, wherein the predetermined residual stress is achieved by controlling silicon precursor flow rate.

59. (new) The process of claim 58, wherein the silicon precursor flow rate is set to a value between about 18 and 54 sccm to achieve the predetermined residual stress.

60. (new) The process of claim 55, wherein the product silicon carbide film is produced to have a predetermined electrical resistivity of about 10 Ω·cm or less.

61. (new) The process of claim 60, wherein the predetermined electrical resistivity is achieved by controlling silicon precursor flow rate.

62. (new) The process of claim 61, wherein the silicon precursor flow rate is set to a value between about 30 and 54 sccm to achieve the predetermined electrical resistivity.

62. (new) The process of claim 60, wherein the predetermined electrical resistivity is achieved by controlling pressure.

63. (new) The process of claim 62, wherein pressure is set to a value between about 0.42 torr and about 5 torr to achieve the predetermined electrical resistivity.

PAGE 7/11 * RCVD AT 7/21/2006 5:26:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/9 * DNIS:2738300 * CSID:2162410816 * DURATION (mm-ss):03-18